

Remarks/Arguments:

By this Amendment, applicants have amended claims 1 and 56-58. Applicants have also cancelled claims 3, 4, 17, 19, 20, 40, 41, 43-45, 47-49, 51-55, 59-70, and 72-74. Claims 1, 32, 33, 35-37, 39, 42, 46, 50, and 56-58 are pending.

Claim Rejections Under Section 112

Claims 3, 4, 17, 19, and 20 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for reasons set forth at page 2 of the Office Action. This rejection is rendered moot by the cancellation of those claims.

Claim Rejections Under Section 102

Claims 1, 3, 4, 17, 19, 20, 32, 33, 35-37, 39, 52-58 and 68-70 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Diamantopoulos. Claims 1, 3, 4, 17, 19, 20, 32, 33, 36, 37, 39-56, 58, 59, 61-65, 67, 68, 70, and 72-74 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Hughes. The rejection of claims 3, 4, and 17 is rendered moot by the cancellation of those claims. The remaining claims are now allowable for the reasons set forth below.

Claim 1 is an independent claim to which all of the other pending claims depend, either directly or indirectly. Claim 1 is directed to a radiant energy radiation apparatus and includes the following elements:

- an artificial radiation source including,
 - means for providing radiation in a visible wavelength range **as illumination**, and
 - means for providing radiation in a predetermined wavelength of 600 nm to 1100 nm for the purpose of permeating into an organism to maintain/promote biofunctions of the organism,
 - wherein on an irradiated plane irradiated with the radiation in the predetermined wavelength range of 600 nm to 1100 nm, and irradiance at a wavelength in the predetermined wavelength range of 600 nm to 1100 nm is 0.1 W/m² or more, and

- o in the irradiated plane, radiant energy of radiation at a wavelength in a range of 1100 nm to 2.5 μ m is greater than zero and smaller than radiant energy of radiation at a wavelength in a range of 600 nm to 1100 nm, and
- o wherein **the means for providing radiation in a visible wavelength range and the means for providing radiation in a predetermined wavelength range of 600 nm to 1100 nm are provided concurrently.**

Applicants respectfully submit that neither the Diamantopoulos Patent nor the Hughes Patent either teach or suggest means for providing radiation in a visible wavelength range as illumination, and the further feature of the means for providing radiation in a visible wavelength range and the means for providing radiation in a predetermined wavelength range of 600 nm to 1100 nm are provided concurrently. Simply put, these features are not found in either the Diamantopoulos Patent or the Hughes Patent.

The advantages of the above-noted features are that the apparatus replaces daylight and provides a sufficient radiation in a red and near infrared region resulting in a healthy condition for the individual exposed thereto. These advantages of applicants claimed invention are found throughout the specification; for example, at page 7, lines 17-29.

The Diamantopoulos Patent relates in general to a device for biostimulation of tissue and includes an array of substantially monochromatic radiation sources of a plurality of wavelengths, "preferably of at least three different wavelengths". (See the Abstract, and col. 10, lines 5-6 of the Diamantopoulos Patent).

Applicants respectfully submit that the Diamantopoulos Patent does not teach or suggest means for providing radiation as illumination. The Diamantopoulos Patent is in contrast to applicants' claimed invention where the radiant energy radiation apparatus also acts as a light source for the user. Furthermore, because the Diamantopoulos Patent does not teach providing radiation as illumination, it consequently cannot teach or suggest the feature of applicants claimed invention of a means for providing radiation in a visible wavelength range and a means for providing radiation in the predetermined wavelength range as being provided concurrently. Because the Diamantopoulos Patent lacks these features of applicants claimed invention, the Diamantopoulos Patent can neither anticipate nor render obvious applicants invention as set forth in claim 1, as well as the claims dependent thereon.

The Hughes Patent relates in general to a bright-light portable phototherapy unit to modify biological rhythms. The portable phototherapy unit of Hughes has a housing in which there is a source for producing light energy having a major portion in the visible light range. The housing is to be placed adjacent to the body of the user for positioning and directing the light from the source through an opening in the housing to be applied to the eyes of the user. Thus, the portable phototherapy unit of Hughes, like the Diamantopoulos Patent, is provided adjacent to the body of the user. Light is provided for application to the eyes of the user. (See the Abstract of the Hughes Patent).

Thus the portable phototherapy unit of Hughes, like the unit of the Diamantopoulos Patent, does not teach or suggest means for providing radiation in a visible wavelength range as illumination. Moreover, the Hughes unit does not teach or suggest means for providing radiation in the visible wavelength range and means for providing radiation in the predetermined wavelength range of 600 nm to 1100 nm which are provided concurrently.

Applicant also points out that the portable phototherapy unit of the Hughes Patent uses a fluorescent lamp or incandescent lamp, which is well known in the art. These lamps described by the Hughes Patent are not in any respect similar to that which is defined in applicants claimed invention.

Applicants further submit that it would not be obvious to one skilled in the art to adapt the device of the Hughes Patent to incorporate that of the Diamantopoulos Patent to achieve applicants claimed invention. Applicants reach this conclusion based on the fact that the devices of both these patents are not directed to or consider the problem of providing an artificial light source for busy people that do not receive sufficient red and near red infrared radiation in their daily lives, as provided by applicants' claimed invention. Thus the Diamantopoulos and Hughes devices simply do not consider the problem solved by applicants claimed invention, which further bolsters applicants position that these references neither teach nor suggest the radiant energy radiation apparatus of applicants claimed invention.

Based on the foregoing remarks, applicants request that the Section 102(b) and Section 102(e) rejections be withdrawn.

Claim Rejections Under Section 103

Claims 1, 17, 57, 60, and 66 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hughes in combination with Diamantopoulos. Claim 1, however, is allowable for the reasons set forth above. The rejection of claim 17 is rendered moot by the cancellation of that claim. Claims 57, 60, and 66 are allowable by virtue of their (indirect) dependence on allowable claim 1.

In view of the foregoing remarks and amendments, applicants respectfully submit that claims 1, 32, 33, 35-37, 39, 42, 46, 50, and 56-58 are in condition for allowance. Reconsideration and allowance of all pending claims are respectfully requested.

Respectfully submitted,


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